

[p.5b]

- [13] ritory is close to the railroad which runs through the town of Zamora to Los Reyes.
- [10] The southern boundary might be defined roughly as on a line from Los Reyes to Uruapan and thence close to the railway from Uruapan to Pátzcuaro, while the new highway from Mexico City to Guadalajara in some places runs just inside the northern limits and in others, just outside. Within or near the borders of the present-day Tarascan area occur a number of old Mexican towns closely associated with the historic Tarascans and their contemporary culture, which provide the administrative centers and the major market places. These towns are
- [361] Pátzcuaro, Zacapu, Purépero, Zamora, Los Reyes, and Uruapan. In some instances other
- [563] towns of local importance have arisen more recently, towns which were once Tarascan but are now occupied by Mestizos and deculturated Tarascans. A good example of such a town is Chilchota.

- [13] Viewed as a whole, the Tarascan area may be characterized generally as an elevated temperate region of sufficient rainfall, deep volcanic soils, and pine or mixed pine and hardwood forests. In detail there are differences, and a number of regions may be identified.

- The easternmost region is that about Lake Pátzcuaro. The lake has an elevation of slightly over 7,000 feet, and most of the villages are either on the shore or upon islands in the lake. The forests have been cleared away
- [361] around the lake except upon lands too steep to cultivate with the plow. Rainfall is heavy, but is concentrated in the summer months. The climate is temperate and cool even in mid-summer.

North of Lake Pátzcuaro is a large fertile valley or depression near Zacapu, ringed about by hills and mountains covered with forest. Although there is but little difference in elevation from Lake Pátzcuaro, the climate is warmer and some tropical or subtropical plants such as sugarcane are grown on a small scale.

- Over a range of mountains to the west of Zacapu is a fertile valley known as La Cañada. Here the climate is warmer and more arid, as
- [912] is evidenced by the frequency of irrigation and
- [241] extensive cultivation of citrus fruit, bananas, and similar tropical and subtropical plants.

[text continues on p. 7a]

[p. 7a]

- 13 West of Lake Pátzcuaro and south of La Cañada is the rugged area known as La Sierra, extending as far west as the town of Tinguindín. This region is relatively homogeneous, with an essentially temperate climate. Although the elevation of towns varies from about 6,000 feet to about 9,000 feet, generally the temperature is cool. Heavy rainfall and the presence of numerous 10,000-foot peaks apparently combine to prevent cultivation of most subtropical plants. Extensive steep, forested slopes and lava flows are interspersed with numerous valleys and depressions in a high state of cultivation. Only in the west, where rainfall apparently is less, are a few towns favored by a milder climate. South of La Cañada and about 133 equidistant from Uruapan, Zacapu, and Pátzcuaro is Cherán, largest of the mountain Tarascan towns and, until very recent years, one of the most isolated. [36]

Situated on a sloping bench, Cherán looks westward over a long depression, dotted with villages and interrupted here and there by cinder cones rising as much as a thousand feet above the depression (pl. 1, upper and lower, left). North and south of Cherán, the series of peaks which bound the depression to the west culminate in two 10,000-foot cones. Eastward is another smaller basin of fertile soil, similarly marked by cinder cones and by the striking isolated volcanic peak of El Pilón, also over 10,000 feet in height.

- 137 Except for occasional marginal farm clearings, the steeper slopes, and those areas where 311 relatively recent lava flows make cultivation impossible, are covered with forest. The predominant species are three or four types of pine, but completely pure stands are rarely found. Usually there is a fair intermixture of oak and madroña, while, beginning at the level of Cherán, fir trees occur and increase in number at higher elevations. These forest lands provide one of the important resources of the Cherán population.

- 311 Wherever the land is sufficiently level to permit regular cultivation, the forest has been almost entirely cleared away. In many places, areas hundreds of acres in extent are continuously cultivated. Maize and, to a much smaller extent, wheat, are almost the only field crops. Cultivation of these, plus exploitation

[p. 76]

- 311 of the forest resources and the breeding of a  
 241 few sheep and cattle, provide the sustenance of  
 the great majority of Cherán's population.

The town of Cherán has a population of  
 632 about 5,000. The community is unique among  
 162 Tarascan towns, not only for its large size—  
 361 almost 2,000 more than that of any other  
 settlement—but because the *municipio* of the  
 same name contains only two, unimportant  
*rancherías*. Most *municipios* in the Tarascan  
 area consist of one moderately large settlement,  
 the *cabecera*, and a surrounding group of small  
 settlements known as *tenencias*, and still smaller  
 communities known as *rancherías* or by  
 other classificatory terms. Usually the total  
 populations of these *municipios* approximate  
 the population of Cherán or even exceed it.  
 Consequently, the unique feature of the *municipio*  
 of Cherán is the concentration of almost  
 the entire population in the *cabecera*.

632 Despite the concentration of population in the  
*cabecera*, the *municipio* of Cherán comprises  
 311 a large area. Much of this area is mountain  
 578 and forest, but there are many relatively large  
 tracts of arable land (maps 2, 3). This circumstance,  
 in part at least, has been the cause  
 of numerous boundary disputes and some loss  
 of territory. The most notable recent loss of  
 territory has been the secession of the one  
*tenencia* of Cherán, the rather large settlement  
 of Cheranástico to the northwest, which seceded  
 in 1939 and joined the *municipio* of Paracho.  
 The immediate cause of this secession again  
 appears to have been a boundary dispute between  
 the *tenencia* and the *cabecera*.

361 Cherán differs from the ordinary Tarascan  
 agricultural village only in size. Throughout  
 the area the type of settlement is the compact  
 village. Probably in most cases the villages  
 represent settlements of Spanish type, with a  
 central plaza about which are the church  
 (sometimes not actually on the plaza), the  
 municipal building, and, more recently, the  
 school. From the central plaza radiates a  
 rectangular grid of streets, modified only where  
 necessitated by the irregular terrain (maps  
 4, 5). In the case of a large settlement such  
 as Cherán, there usually exists some fragmentary  
 legend of origin of the settlement through  
 amalgamation of aboriginal groups dispersed

[text continues on p. 12a]

[p. 20a]

Sierra Tarascan

223 in the tops of bushes in which quail perch and peer about. When the bird puts its head in the noose, the hunter, who is hidden nearby, pulls a string. Pigeons are hunted mostly by boys, who set snares near watering places. The birds ordinarily water at dusk, alighting away from the water and walking toward it. The boys erect small fences by the water and hang the snares in openings left at frequent intervals.

435 Deer meat is sold in the village at the price of beef. It is said not to be liked very well.

438 Squirrels are sold at 10 centavos and pigeons at 5 centavos each. Wild ducks are brought

262 from Zacapu and sold at 50 centavos to 1 peso each, depending on size.

# AGRICULTURE

241 Cherán is primarily an agricultural village. Many Tarascan towns have industrial specialties at which most of the inhabitants work full or part time. For example, it is fair to say that Paracho is a woodworking and weaving village or that Patamban is a pottery-making village, even though a number of persons devote part or all of their time to farming. In the same way, although there are industrial specialists in Cherán and it produces an important amount of forest products, such as lumber, railway ties, and charcoal, farming nevertheless overshadows all other activities. Most Cherán residents own land or farm on shares, and the majority engage in no other activities. In relation to all economic activities, then, farming occupies a place comparable to that occupied by pottery manufacturing in Patamban or fishing in some Lake villages.

The basic crop of Cherán is maize. Second in importance, but ranking far below maize, is wheat. Yet despite the emphasis on these two crops, Cherán farming is extraordinarily varied, as the following list of cultivated plants shows:

|                      |          |
|----------------------|----------|
| Maize                | Cabbage  |
| Wheat                | Silantro |
| Burley               | Mint     |
| Cuts                 | Fennel   |
| Amaranth             | Fears    |
| Broadbean (haba)     | Plums    |
| Squash (chilacayote) | Cherries |
| Pumpkin              | Apples   |
| Beans                | Peaches  |
| Potato               | Quince   |

● 241

Magney (agave)  
Chayote

Crab apples  
Zapote blanco

[438] The above list is but a portion of the total number of varieties cultivated by the Tarascans in other villages. Plants used in Cherán but grown in other villages include onion, garlic, tomato (several types), chile (many kinds), sugarcane, sweetpotato, banana, lime, lemon, orange, guava, mamey, mango, watermelon, canteloup, avocado, *zapote negro*, and cherimoya.

#### TYPES OF FARM LANDS

311 The lands cultivated by the Cherán Tarascans  
134 all have soils almost exclusively composed of volcanic ash or cinders. However, low-lying areas which receive materials washed from the higher ground are usually more fertile and in a few specially favored spots may be cultivated annually. As a general rule, however, lands are cultivated only in alternate years.

311 Cherán lands are of five main categories: (1) "Plains" or valley floors, which may include some gently sloping or rolling areas but which are relatively flat; (2) patches of sloping land capable of permanent cultivation; (3) small areas of level land, usually called "*joyas*," consisting of small valleys, depressions in the midst of lava flows, which were not covered by lava, and the level depressions in the craters of cinder cones; (4) relatively level or gently sloping garden plots within the town; (5) temporary fields on the steeper slopes of the mountains.

[423] The so-called "plains" consist of several large areas (maps 2, 3), subdivided in numerous privately owned plots. Maize and wheat are the principal crops grown. The "plains" are cultivated in alternate years under supervision of the town government. Harvest dates are fixed by the town council; after the final date, the "plains" become community pasture. Fencing of individual plots is not permitted, nor is planting in consecutive years. Therefore, men who own land in only one "plain" plant only every other year. Consequently, everyone tries to have land in at least two "plains."

311 The largest "plain," usually referred to simply as *el plan*, is west of Cherán, extending from the foot of the slope below the town to the

[p. 21b]

#### THE FARMING CYCLE

221 A clearer picture of the agricultural cycle  
241 may be given by a monthly summary.

January: Little to do; second plowing of maize lands may begin.

February: Second plowing of maize lands.

March: Maize planting begins.

April: Maize planting; first cultivation of early maize at end of month; planting of vegetables and maize in *solares*.

May: Wheat harvest; second cultivation of maize.

June: Second cultivation of maize; some wheat threshing (continued in dry weather throughout rest of year).

July: Fairly free month; weeding of maize begins; second cultivation of maize continues.

August: Plowing for wheat.

September: Planting wheat; cutting maize fodder.

October: Plowing for maize; rains usually end; cutting maize fodder; wheat threshing nearly finished.

November: Maize harvest (if lower lands planted); plowing.

December: Maize harvest on higher lands; plowing.

#### SOIL PREPARATION

241 Land is prepared for field and garden crops (except for small kitchen gardens of cabbage and herbs) by plowing one or more times (pl. 4, upper left). The plow used is usually a wooden type (fig. 3). The Government has given some 30 steel plows to the *municipio*, which lends them to farmers; although these are all in use, they care for only a small part of the plowing.

231 Regardless of the type of plow, it is almost  
241 always drawn by oxen. Mules, and perhaps  
492 horses, undoubtedly are used sometimes, but not as frequently as in adjoining Aranza; in the entire season of 1940-41 no single instance was observed on Cherán lands. If the wooden plow is used, the long plow beam is attached to the ox yoke directly. Steel plows are attached to the ox yoke by a chain. An ox goad of wood, often with a chisel-like metal butt (for sticking in the ground), is employed.

[427] A great many farmers own oxen; if they do not, they must rent them at 75 centavos to 1 peso a day, depending on the demand. If drivers are hired, 50 centavos a day is usual. On the other hand, if a man has rented his land on shares, he must make sure his tenants plow at the right time. Usually land is plowed twice before planting, but the depth rarely exceeds 6 inches.

MAIZE

- 241 Except in the garden plots and a few other highly favored places, corn is never planted on the same ground on two successive years. Garden plots are more carefully cultivated and are fertilized to some extent by depositing organic refuse of all kinds and, if available, manure. Good farmers will even carry surplus manure to the fields, but some are lazy and simply throw it in one of the arroyos. It is then carried down to the "plain" west of town. As a
- 241  
133

[p. 22a]

133 result, a part of the "plain" where the water  
241 sinks into the ground can be farmed every year.

The basin, of which the "plain" forms a part,  
has no outlet. So porous is the volcanic soil  
that streams run only briefly after heavy rain-  
fall. The drainage of the entire basin collects  
on the Cherán-Aranza boundary, where it sinks  
into the soil within a few hours after a storm.  
The entire sink area is cultivated and is highly  
fertile. No rotation of crops is ordinarily  
241 practiced on the plain; but in the mountains,

[Text continues on page 23 a]

[p. 22 b]

[p. 23a]

241 when maize begins to do poorly in a field, with small stalks and poor ears, barley is often planted for 1 year. This "warms up" the soil and good corn crops are secured for a few years.

243 Maize lands are plowed twice, the first time in late summer or fall, the second in late winter, the furrows of the second plowing being made at right angles to those of the first. Planting takes place in the spring after danger of frost is past; on the plain this is as early as March, but at higher elevations it may be later.

Three men and two yokes of oxen are used in planting. One yoke of oxen draws a plow which opens a furrow. A man follows this furrow, dropping seed each step and pressing it down with his foot. Two grains are dropped unless worms are bad, when three or four may be planted. Maize rows are about 1 vara (32 inches) apart. The second yoke of oxen draws a plow which makes a furrow between the planted rows, covering the seed to a depth of about 4 inches. To aid in covering the corn, the second plow has a wooden bow fastened horizontally below the beam behind the plow point. No digging stick is ever used except to replant fields damaged by worms, and all work is done by men. There is no exchange of labor or lending of tools or animals, even among relatives.

Several types of maize are grown. Trimásion is white with a somewhat larger grain and is sown in the "plains." It has more and larger stalks and ears. Tulukénio is yellow and has small grains. It is sown in the mountains about 8 to 15 days later, but matures at the same time as Trimásion. The ears are short, ordinarily about 4 inches in length, and the stalks are smaller. The fact that Tulukénio is always sown on poorer and colder lands probably accounts for most of the differences, although it is claimed that the differences persist when the two types are planted in the same fields. However, probably because of the methods of seed selection and the isolation of mountain fields, some regressive or primitive types occur in Tulukénio which may have genetic significance. Not enough Trimásion types have been studied to define the differences.

In the garden plots a black or dark-blue maize (írá,ki) is planted. It appears to have some significant differences from Tulukénio,

- 245 *tejocote* as a domesticated type. It is harvested and exported for making jellies and preserves. A few are used locally.
- [252]  
[439] Some quince trees are found in Cherán. They are little used, but some preserves are made.

## BELIEFS AND CUSTOMS

- 241 Most beliefs and customs center about maize. Most important are the beliefs about red ears, *ččču*. A red ear is described as the mother, chief, and *ače* (ceremonial leader) of all maize. In the storage lofts, red ears are mixed in with the yellow and white to act as guardian of the rest. They are never eaten until all the white and the yellow corn are gone. Care is taken to plant seed from one or more red ears in each field; otherwise it is believed that there will be no harvest.

- [755] Red ears and black ears are both said to be used in curing, but no details could be secured.

Twin ears, *cuates* (*šaninkuáte*), are said to come because God wishes to send a little more. Sometimes large ears have four or five points; they are said to be the hand of the planter.

- [782] The family harvesting the first green corn in the town places two or three ears on the altar of San Francisco. Each family gives one or two *cargas* of maize on the cob to the priest.

- 789 If the rains do not come at the proper time near the end of May, the image of San Ramos is taken to the peak of San Marcos. The image is placed on a white sheet, held by a man at each corner, and tossed in the sheet. If San Ramos can be made to cry, it begins to rain immediately. During the rite a *rezador* recites a rosary, copal is burned, and *cohetes* are fired.

- 241 Every year, beginning in January, the grass is burned, causing great damage to the forests and destroying the last remnants of pasture. The burning is said to prevent heavy frosts, while the smoke hastens the coming of the rains. Town officials and officers of the Forest Service succeeded in extinguishing most of the fires in 1940.

[632] It is said there are no beliefs regarding wheat. Nevertheless, wheat must be carried in a wooden bowl while sowing or it will be attacked by rust, "*tecolote*." Rust is a sign the planter used his hat, blanket, or some other improper article at planting. Girls plait elab-

- 241 orate ornaments of wheat straw at harvest time, which are hung on the veranda or inside the house. Beliefs about these ornaments were denied.

No beliefs or customs were discovered regarding other plants except those connected with roasting the wild agave.

#### DOMESTIC ANIMALS

- 231 The domestic animals found in Cherán are cattle, horses, mules, burros, sheep, goats, pigs, dogs, cats, chickens, pigeons, and bees. Of these, cattle, burros, sheep, and pigs are the most numerous and of greatest economic importance. Turkeys, ducks, and geese are completely lacking, although they are found in other Tarascan towns. Sevina, for example, [194] has a fair number of turkeys.

- 231 Cattle.—Ownership of cattle is widespread in Cherán, but accurate knowledge of the extent of ownership is impossible because of the tendency to conceal wealth. As most cattle are kept at pasture, usually in the mountains, house censuses are of no value. Possession of cattle seems to make little difference in the economic position of their owners. Wealthy men often own herds of some size which they do not appear to exploit to their fullest extent. Such men, though, probably gain some social prestige, for their bulls will be sought for use in the bull riding which forms an important part of the fiesta of the patron saint of Cherán.

- 231 Cattle are raised for several economic uses: meat, milk, draft animals, and sale outside the town. Somewhat different treatment is accorded animals raised for various purposes; consequently, separate discussion is indicated.

- 234 Relatively few cows are milked, and most families do not keep milk cows. There is no special breeding for milk cattle and a "very good" cow will not give over 2 liters of milk a day. The milk is sold in Cherán, usually for pregnant women or sick people, or it is made into cheese. Only a small part of the local demand for cheese is supplied in this fashion, however. No butter is made.

- [462] Milking is done only by men, but women clean the milk containers, make the cheese, and may care for the animals. Milking is done by primitive methods; the cow is tethered closely at the head and the hind legs are tied together.

236 Although mutton is eaten to some extent,  
 [262] sheep are raised primarily for wool. Sheep  
 are sheared twice a year, in late fall and early  
 summer. A sheep yields about 1 pound of wool  
 [435] in two shearings, which sells at from \$1.00 to  
 \$1.25 (all monetary values are in Mexican cur-  
 rency). Black wool brings more than white  
 (as it is all used locally for serape weaving).

233 *Goats.*—Only a few goats are raised. Nor-  
 mally they are herded with the sheep and are  
 [234] treated like them. In rare instances the goats  
 are milked, and the milk is made into cheese.  
 [438] The most important use of goats is to sell them  
 for food, usually outside the town, as goat meat  
 [262] is rarely eaten in Cherán. Goatskins are sold  
 uncured with the hair.

231 *Horses.*—Although some horses are bred in  
 Cherán and some care is exercised in breeding,  
 it is said the animals deteriorate because of the  
 cold climate. Consequently, most horses are  
 imported, but they also deteriorate rapidly.  
 More important than the cold, undoubtedly, is  
 the fact that no one in Cherán understands the  
 care of horses. They are badly fed and receive  
 little protection from the weather. Stallions  
 are castrated.

[492] In any case, horses are rare in Cherán and  
 are little used except as riding animals, es-  
 pecially by those with numerous cattle or pack  
 animals. Riding and pack gear are the same  
 as those of the Mestizos. Although in other  
 [184] Tarascan towns horses are used in plowing,  
 [241] this was denied in Cherán. A rather poor  
 [435] horse costs about 70 pesos. Most horses be-  
 [556] long to well-to-do men and primarily are indica-  
 tors of social position. Attitudes toward own-  
 ing a horse are a weak reflection of those of the  
 vanishing Mexican *caballero*. Women almost  
 never ride.

Horses are fed maize, oats, maize stalks, and  
 [232] wheat or oat straw. Few people have any  
 knowledge of treating illnesses of horses.  
 [422] Ownership is indicated by branding, and horses  
 [552] are given names similar to those used by  
 [262] Mestizos. Horse meat is not eaten, but horse  
 [291] hides are valued for tanning.

*Mules.*—Mules are even rarer than horses  
 and have a higher value. Almost all are im-  
 [492] ported. They are used mostly as pack animals,  
 but occasionally they are ridden or used with  
 the plow.

[p. 68a]

256 wheat, and the milling charge. A *carga* pro-  
 243 duces about 14 *arrobos*, or about 250 pounds  
 434 of flour, of which the mill takes  $2\frac{1}{2}$  *arrobos*, or  
 438  $62\frac{1}{2}$  pounds. The farmer receives  $187\frac{1}{2}$   
 pounds of flour. Either of these procedures  
 involves the labor of transporting wheat to the  
 mill and, in case the farmer has no burros, the  
 rent of pack animals or trucking charges.  
 Mills are at Jacona (regarded as the best),  
 Purépero, Tanátaro, and Carapan.

Yet another way of disposing of wheat is to  
 grind it at home or in a *nixtamal* mill and bake  
 bread for sale in the market towns and at  
 fiestas. Only relatively small quantities are  
 used in this way.

245 One agricultural activity for which few data  
 438 were obtained is fruit growing. No informa-  
 434 tion was secured on yields of trees or on labor.  
 The main labor cost is harvesting, usually done  
 by the family at a time when there is little  
 other agricultural activity. Fruit may be car-  
 ried to markets, or it may be sold to traders.

434 Another view of farming activity may be  
 244 gained by examining the income of individual  
 511 farmers. These data are probably somewhat  
 unreliable, for, as previously indicated, there is  
 a tendency to minimize wealth and income.  
 Table 2 summarizes the available information.

Case 1 is a school teacher with a small  
 family who rents his land. Probably his share  
 in good years supplies most of his family re-  
 quirements of maize. Case 2 is a storekeeper  
 who also rents his land. In years when his  
 land lies fallow, he must have to buy a little

241 maize. Case 3 owns a store run by his chil-  
434 dren, but he regards himself as a farmer by  
511 preference. Even without his store, he would  
be well off by Cherán standards, although not  
a "rich man." In 1940 he produced nearly  
enough maize for his family and sold over \$300  
worth of wheat. In 1941 he probably was  
able to sell not less than 35 *fanegas* of maize  
above his family's food needs (less if he raised  
pigs or fattened beef for butchering). Case  
4 is a widow. Her land is cultivated by a  
nephew, but under what circumstances is not  
known. If the nephew lives with her, the  
amount of maize is a little inadequate; on the  
other hand, if she lives alone, the quantity is  
more than enough for one person.

#### ANIMAL HUSBANDRY

231 It is virtually impossible to secure useful  
434 data on labor costs or profits in relation to  
animals. Under agriculture I have mentioned  
some of the facts about oxen. No data were  
collected on chicken raising; probably no one  
in Cherán knows how much grain he feeds  
chickens or how many eggs a year he gets.  
[435] Prices vary from 2 to 6 centavos per egg. The  
situation about pigs is little better.

Virtually everyone keeps pigs; no one has  
any idea of the total amount of grain fed  
except during the fattening period. Shoats  
have little value and are frequently given away.  
Data on labor are lacking, yet the labor cost  
cannot be negligible when the animal is being  
fattened and its pen is cleaned frequently. A

241  
433  
434  
511TABLE 2.—Data on farm income  
(Data for 1940, obtained; for 1941, estimated.)

| Case No.       | Land cultivated   |                                 |       | Yield                                 |                                                                               |               | Value of crop <sup>a</sup> |        | Total income for year |        | Combined income for 1940-41 |
|----------------|-------------------|---------------------------------|-------|---------------------------------------|-------------------------------------------------------------------------------|---------------|----------------------------|--------|-----------------------|--------|-----------------------------|
|                | Number of parcels | Number of hectares              | Value | Crop                                  | 1940                                                                          | 1941          | 1940                       | 1941   | 1940                  | 1941   |                             |
| 1 <sup>b</sup> | 2                 | 3                               | \$140 | Maize<br>do                           | 20 fanegas                                                                    | 10-15 fanegas | \$100-140                  | 80-100 | \$100-140             | 80-100 | \$180-240                   |
| 2 <sup>c</sup> | 1                 | 4<br>Town lot                   | 350   | Maize<br>Pease                        | 25 fanegas<br>10-100's                                                        | 8-100's       | 175-200                    |        | 175-200               |        | 175-200                     |
| 3              | 1                 | 6<br>1 1/2<br>Town lot<br>3 1/2 | 1,250 | Wheat<br>Maize<br>do<br>Peas<br>Maize | 17 1/2 cargas<br>7 1/2 fanegas<br>7 1/2 fanegas<br>25-100's<br>55-110 fanegas |               | 430-571<br>40<br>40<br>10  |        | 440-561<br>275-500    |        | 735-1,091                   |
| 4              | 1                 | 14<br>14                        | 120   | Wheat<br>Maize<br>do                  | 3 cargas<br>9 fanegas<br>9 fanegas                                            |               | 25<br>55                   |        | 80                    |        | 135                         |

<sup>a</sup> Value of fodder or wheat straw not included.<sup>b</sup> Land rented; crop values represent owner's share (one-half).<sup>c</sup> Cost of threshing deducted.<sup>d</sup> Value not included in \$1,250.

[p. 68c]

[6.746]

Sierra Tarascan

|     |                                      |              |
|-----|--------------------------------------|--------------|
| 253 | 15 arrobas (375 pounds).....         | \$90         |
| 433 | 14 arrobas (350 pounds).....         | 65           |
| 434 | 16 arrobas (400 pounds).....         | 92           |
|     | Retail price (per kilo).....         | .70          |
|     | Gross profit on beef (per kilo)..... | .40-.45      |
|     | Price of pigs.....                   | 30.00 and up |
|     | Gross profit, per week.....          | 7.00-8.00    |
|     | Gross profit, per pig.....           | 3.50-8.00    |

*Comment:* Returns to butchers are slight on the basis of meat sales. Generally the profit consists of: (a) Meat for the family at no cost, and (b) sale of the hide, usually for \$10.00. Most butchers handle beef only, but one who specializes on pork, butchering one or two a week, claimed a profit of 7 or 8 pesos. An item unaccounted for in the figures for beef is a tax of \$5.00 on each animal killed. It is also widely believed that some butchers deal in stolen cattle at a considerable profit. Few butchers lack other sources of income, however, which argues against great profits. Butchering also varies in profitability at various seasons; when cheese is abundant the demand for meat falls off, and the butcher may have to dry part of his meat and sell it at a lower price.

[651]

**Field watchers:**

241

**Wages:**

434

|                                                                   |             |
|-------------------------------------------------------------------|-------------|
| In maize .....                                                    | 1 row in 30 |
| Average income for 6 weeks to 2 months (cash value of maize)..... | \$60-\$65   |

*Comment:* Field watchers (*veladores*) must be men of good reputation. Usually they watch 20 to 25 pieces of land. Although wages seem high—\$1 a day or more—the work is seasonal and involves staying day and night in the fields.

**Water carrying:**

312

434

|                                   |        |
|-----------------------------------|--------|
| Charge for two 25-liter cans..... | \$0.06 |
|-----------------------------------|--------|

*Comment:* Only one man engages in this work regularly. He works fairly steadily, but no data were secured on his income. Presumably it is as good or better than he could earn as a laborer.

**Beekeeping:**

231

433

434

|                                   |            |
|-----------------------------------|------------|
| 12 hives produced:                |            |
| 15 liters of honey at \$0.60..... | \$ 9.00    |
| 3-4 kilos of wax at \$2.25-\$2.50 | 6.70-10.00 |

**Wax:**

|                                                            |             |
|------------------------------------------------------------|-------------|
| 1 kilo makes 10-centavo candles worth.....                 | 3.00- 3.25  |
| 3-4 kilos make 10-centavo candles worth.....               | 9.00-13.00  |
| Potential income from 12 hives if owner makes candles..... | 18.00-22.00 |

*Comment:* In all cases bees are kept as a profitable, but not extremely important, sideline to other activities.

**Fireworks making:**

389

433

434

Figures from the one fireworks maker in Cherán proved inconsistent upon analysis. The following facts seem reasonable.

[p. 213a]

Sierra Tarascans

La Cañada

121 made can a practical program be formulated for Cherán. Anthropological studies by themselves offer no easy and golden pathway to the solution of Indian problems. The most thorough study of the Tarascans must be ineffective practically if the necessary administrative objectives are not clearly defined. The data of an anthropological study such as this can do no more than offer hints as to the "soft" spots of the culture, the areas in which change can most easily be introduced, as well as the *costumbres*, the points of resistance, such as ceremonies (not necessarily including religion), dress, dances, weddings, and death customs. The study can likewise indicate some of the major problems of Cherán, such as the under-productivity of the soil and agricultural technology, the inadequate mechanization, the probable existence of an overly large population to permit any marked rise in economic status, the need of creating new attitudes in spending (for Cherán could finance many public improvements itself), the inadequacy of the water supply, the lack of public health facilities, and the shortcomings of the educational system.

In relation to these problems, further studies are needed in which the anthropologist is aided by technicians in soil use, farming, forestry, and animal husbandry techniques. Scientific-  
[text continues on top of p. 213b]

# APPENDIX 1

## DATA ON FOOD PLANTS AND FOOD FROM LA CAÑADA

121 The following data were collected by Silvia Rendón in the pueblos of La Cañada, the next valley to the north of Cherán. As the valley is at a lower elevation than is Cherán, some differences are noticeable in techniques and in plants grown. Unless otherwise specified, the data are from Chilchota; although far from complete, they are included here because they afford some interesting comparisons, the more so in that Chilchota is a Mestizo town today.

241 Plants cultivated: All of the plants cultivated in Cherán as well as many others, are  
262 found in La Cañada. Black maize is grown in the fields, rather than in the house lots, but, as in Cherán, it is kept separate in storage and is used only for certain types of tamales and  
[text continues in middle of p. 213b]

[p.213 b]

Sierra Tarascans

La Cañada

121 ally, such studies should be of great aid also, permitting better understanding of the fundamental limitations on Cherán culture.

Once a set of definite objectives has been established, the data of the anthropological study will be of considerable use in formulating a concrete program and in developing Tarascan cooperation. Moreover, the introduction of a program in itself, creates changes in the cultural situation. The dynamic quality of culture makes it important that administrative programs be accompanied by further study and be flexible enough to adapt to the changing situation.

Despite these remarks on the practical problems of government in the Tarascan area, it should be emphasized that the present study is primarily concerned with scientific objectives. These objectives happen to be closely related to practical considerations, for administrative objectives in Mexico call for culture change in some measure. Cultural processes and the function and interrelation of the parts of a culture emerge most clearly from dynamic situations rather than from static studies without temporal extension. Not only practical but scientific objectives can be served by the study of Cherán culture in transition.

## APPENDIX 1

### FOOD FROM LA CAÑADA

241 atoles. Wheat is sown twice a year; one planting is in June and it is harvested in December; 262 the second is in November, in the house lots, and it is harvested in May. Beans are grown more extensively than at Cherán; the harvest is exclusively by women.

Among the plants generally grown in Chilchota is amaranth (*bledos*). The cultivation is not commercialized, each family growing a little for its own use. Amaranth is used by Indians of La Cañada for making sweets; in Chilchota it is employed in sweets, certain atoles, and in an uncooked tamale resembling a tortilla which is sold in Capacuaro.

245 A considerable number of fruits are cultivated in Chilchota. 262 Mangoes of the *criollo* and

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492  
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417  
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443  
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FLOWING, DITCHES TO PROTECT FIELDS, LOG HEWING, AND CHERÁN PLAZA DURING FIESTA.

*Upper (left):* Plowing on the plain. Augustin, at the plow, wears felt hat, shirt, trousers, belt, and shoes; workman at left, less acculturated, wears straw hat, sandals, and mechanic's overalls. *Upper (right):* Squaring a log with an ax before sawing it into planks. *Lower (left):* A hill-slope field, with new ditch (center) and overgrown bank surmounted with thorny brush (foreground) to protect it from animals. Agaves are planted on right of ditch. *Lower (right):* Portion of Cherán plaza during the fiesta of the patron saint.

[End Plate 4]

175 fitted into the class system of colonial  
621 Mexico.

[565] Every Indian community was also a cultural unit and had a large degree of cultural distinctiveness. These cultures, however, were also strongly influenced by national, economic, governmental and religious institutions. They are characterized as folk or local peasant cultures.

175 The other main type of social unit in  
621 rural Mexico was the privately owned estate, in Spanish, *hacienda*. Haciendas can  
423 be included in Sorokin's Type 5 of rural communities: "a latifundian, manorial, or large estate type of rural aggregate (privately owned)."<sup>6</sup> The conflict between these two types of social units, pueblo and hacienda, is the essence of the history of rural Mexico. During this conflict the village communities receded in the face of the growing haciendas, while within the villages the trend was toward individualization of landownership and toward becoming Sorokin's Type 3, i. e. "a rural aggregate of individual farmer-owners."<sup>7</sup>

\* \* \*

175 The colonial village community was the  
621 primary economic unit, to some extent self-sufficient but never completely so. In a  
423 society based on agriculture, it was the main landowning unit. Every village community had the following kinds of communal land: *fundo legal*, the site on which the town was built; *ejido*, land for the common use of all the villagers (mainly woods and pasture lands); *tierras de repartimiento*, land owned by the community but allotted for the personal use of the villagers; and finally *propios*, lands which were communally worked, or more frequently rented out. The produce of these was kept as a community fund (*caja de comunidad*) and used to defray municipal expenses.<sup>8</sup> Important among these expenses are those related to the organization of the cult and the support of the Church.<sup>9</sup>

175  
• [241] Agriculture was the economic basis of  
[43] most of these communities. Many household crafts were also of great importance. In some industries, products were consumed in the household; in others, they were traded over certain areas. There was much town specialization in those crafts which involved intense commerce.

175 For various reasons differences in wealth  
556 came to exist within the community: The Indian nobility kept some of their private

6. *Ibid.*, 563.

7. *Ibid.*, 563.

8. Mendieta y Núñez, 1934, 53-70; Haring, 1947, 174-5.

9. Chávez Orozco, 1934, *passim*; 1943, Chapter 2.

175 tzen<sup>42</sup> and Jarácuaro. This was particu-  
 423 larly the case in towns near haciendas to  
 464 which they had lost their lands, as, for in-  
 stance, in the villages on the southern  
 shore of Lake Pátzcuaro. Work in those  
 haciendas was essential to the livelihood  
 of the villages.<sup>43</sup>

175 These differences in wealth within the  
 621 villages were responsible for the splitting  
 578 of the villages into opposite parties in re-  
 lation to the conflicts unleashed by the  
 Revolution, which will be described below.  
 No matter how violent this conflict be-  
 came at times, it should always be kept in  
 mind that these disrupting factors were  
 never more than a tendency. The concen-  
 tration of property was not large enough to  
 lead to the formation of haciendas, and the  
 village as a functioning economic unit was  
 not destroyed. There are other factors, re-  
 lating to land tenure and agricultural  
 methods, to which can be ascribed the  
 basic conservatism of the villages which  
 still keeps the community together.

423 Practically every village has some com-  
 munal lands left. Permanent agricultural  
 lands are still communal in only five of  
 the ten Cañada villages. There, title to the  
 land is held by the town, but within the  
 town private property prevails, and land  
 can be inherited and sold among villagers.<sup>44</sup>  
 Some other towns have, besides the indi-  
 vidually owned lands, communal croplands  
 which are worked in common, usually by  
 the landless farmers, their produce going  
 in part to the workers, in part to the  
 town.<sup>45</sup> Forest land is communal every-  
 where, and all villagers have the right to  
 gather wood or to farm temporary clear-  
 ings. Only recently (in the 1930's), have  
 [65] the Federal Forest Laws required the pay-  
 ment of a tax and securing of a permit for  
 those activities.<sup>46</sup>

621 Although cultivated lands are privately  
 241 owned the agricultural technique demands  
 the cooperation of the whole community.  
 311 Beals thus describes this system in Cherán:

"The so-called 'plains' consist of several large  
 areas, subdivided in numerous privately owned  
 plots. Maize and wheat are the principal crops  
 grown. The 'plains' are cultivated in alternate  
 years under supervision of the town govern-  
 ment. Harvest dates are fixed by the town coun-  
 cil; after the final date, the 'plains' become com-  
 munity pasture. Fencing of individual plots is  
 not permitted, nor is planting in consecutive

42. Beals, 1946, 61.

43. León, 1934, 155.

44. West, 1948, 22-23.

45. Loc. cit.

46. West, 1948, 23; Beals, 1946, 31, 59, 60; Mandiata y  
 Núñez, 1940, 279; Foster, 1948, 170-1.

241 years. Therefore, men who own land in only  
 311 one 'plain' plant only every other year. Conse-  
 621 quently, everyone tries to have land in at least  
 two 'plains'.<sup>47</sup>

Similarly in Jarácuaro, the whole island  
 is divided into two sections which are al-  
 ternately cultivated.

West describes this system as general  
 in the Sierra.<sup>48</sup>

[609] Given this system of cultivation, the re-  
 sistance against selling land to outsiders is  
 easily understandable as all farmers have  
 to work in close agreement. Any outsider  
 using his land in a different way would  
 disrupt the whole system.

82 This question of disintegrative versus  
 621 conservative tendencies within the villages  
 can also be discussed in relation to a sub-  
 438 sistence economy or a market economy. No  
 433 doubt, in proportion as production is for  
 consumption within the village, the easier  
 it is for the community to hold its own  
 against disrupting influences; the more it  
 is intended for a larger market, the more  
 likely it is that outside influences will pene-  
 trate the life of the community.

439 The connection of any Tarascan village  
 433 economy, whether agricultural or depend-  
 ing on crafts, to the national and world  
 markets is undisputed and has been set  
 forth clearly.<sup>49</sup> Part of the agricultural  
 products, practically all handicrafts, and a  
 sizable amount of labor are sold out by  
 producers, while most consumption goods  
 are bought from outside, with the excep-  
 tion of part of the food (housing and cloth-  
 ing to a much lesser extent). However,  
 production of food, mainly corn for the  
 villagers' own consumption, is basic to the  
 economy of the villages and their relation  
 to the national economy. This fact deter-  
 mines their attitude toward land and corn.  
 423 Land is the most desired form of property  
 435 and the safest way of investing money, be-  
 cause of the security it will give as a source  
 of corn. The ability to produce one's own  
 [185] corn is the supreme aspiration of every  
 farmer.

433 An analysis of agricultural economics  
 241 shows that farming on poor land in Cherán  
 (a prosperous farming town) and Tzin-  
 tzuntzan is done at a loss; that is, produc-  
 tion costs (equipment, taxes, labor, etc.)  
 are greater than the value of the crop.<sup>50</sup>  
 Owners of such lands could earn more by  
 hiring out as laborers than by working  
 their own fields.<sup>51</sup> This way of farming

47. Beals, 1946, 20.

48. West, 1948, 30.

49. Beals, 1946, 55-9; Foster, 1948, 145-6, 220-22.

50. Foster, 1948, 75-8, table 14; Beals, 1946, 63-4.

51. Foster, 1948, 78.

241 goes on because, as Beals says, "The  
433 Cherán point of view does not reckon agri-  
cultural activity in terms of interest, pro-  
fits and wages, but in terms of maize in the  
storage houses."<sup>52</sup>

464 Monzón,<sup>53</sup> in discussing the Indian prob-  
lem of Mexico from the point of view of  
Western civilization, considers the Indians  
together with the unemployed as a labor  
reserve, only occasionally put to use. If  
one views the situation from the point of  
view of the Western economic system and  
considers the fact that farming is done at  
a loss, the great importance of emigration,<sup>54</sup>  
[167] and the enormous response of labor during  
the war when laborers (*braceros*) were  
contracted to work in the United States,  
one wonders if the basic factor preserving  
the self-centered Indian villages and their  
folk culture is the strength of these, or  
rather the inability of the Western econ-  
omic system to absorb those people whom  
the disruptive tendencies created by this  
system throw out to the labor market.

438 Handicrafts are very important to the  
178 economy of many Tarascan villages, and  
changes have to be examined in this field.

Throughout the Colonial and Indepen-  
dence periods, many changes took place in  
industries and their location. These changes  
have been described by West.<sup>55</sup> Of interest  
to our subject are changes as related to the  
disruptive and conservative tendencies  
within the villages. The development of  
modern industry in Mexico and the con-  
comitant higher economic activity have  
caused, on the one hand, the decline or dis-  
appearance of some handicrafts which can  
not compete with industrial products, and,  
on the other hand, the further development  
of handicrafts which have found a better  
market and no competition.

178 Among the declining industries, the  
286 most important are textile handicrafts.  
Spinning and weaving of white cotton  
cloth, which was the most important fab-  
ric made, have completely disappeared.<sup>56</sup>  
Women's skirts are increasingly made from  
factory-manufactured woollens instead of  
the local hand-made cloth,<sup>57</sup> and industrial  
cotton or woolen blankets (*tilma, poncho*)  
463 are cheaper than the locally made serape,  
178 and are frequently used even if the latter  
are preferred. Ironwork is another extinct  
craft,<sup>58</sup> leather work has greatly declined,<sup>59</sup>

52. Beals, 1946, 65.

53. Monzón, 1947, 237.

54. Beals, 1946, 98.

55. West, 1948, 56-71.

56. *Ibid.*, 64.

57. *Ibid.*, 68.

58. *Ibid.*, 70-71.

59. *Ibid.*, 69.

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[661]

ejidatarios to the level of underpaid laborers. ("The committee and its gang are living off the work of the rest of the people.") The upshot was that the ejidatarios managed to obtain from the government the abandonment of the cooperative exploitation and the distribution of the land into personal parcels. No further information is available.<sup>67</sup>

Ejidots were also granted on the southern shores of Lake Pátzcuaro. Here, ejidos were first established around 1920. Later on some were enlarged and new ones set up during the late 'thirties. Napízaro (originally granted 1936, enlarged 1938), Erongaricuaro (granted 1918, enlarged 1936), Uricho (granted 1920, actual possession given 1930, enlarged 1936), Santa Ana (1934), Tzurumútaró (granted 1921, possession given 1930, enlarged 1937), are among the main agrarista villages.<sup>68</sup> Other villages like Arócutin and Puácuaro have also agrarista groups but no information is available as to ejidos granted.

[24]

All these ejidos are individual. Lands are distributed to members by furrows, Tarascan style, and each individual lot is small (not more than 2 hectares). The tilling of the land is done individually, although laborers are sometimes employed. The main crops are corn, wheat, and beans.

[452]

No credit has been received from the Bank of Ejido Credit. Woodlands are owned in common by the ejido. Its members can exploit them freely, but non-members have to pay a fee.<sup>69</sup>

In the Sierra and the Cañada towns there were no haciendas, and the granting of ejidos was not feasible. Only Tanaquillo in La Cañada had an ejido granted, in 1935.<sup>70</sup> In most villages, however, groups of peasants organized into agrarian committees in order to seize whatever lands they could — communal lands or those belonging to the richer landowners. These revolutionary groups formed armed guards by means of which they seized and kept power in their villages.<sup>71</sup>

[669]

In some towns like those in La Cañada, Charapan and Urapicho, a great number of farmers had lost their lands to richer neighbors or to outsiders. Haciendas had not been formed, but there were much absentee landownership and concentration of property. The people fought to get their lands back.<sup>72</sup>

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42367. *Ibid.*, 477f.68. *Mendieta y Núñez*, 1940, 205-22.69. *Ibid.*, 203-4.70. *Ibid.*, 205.71. *Ibid.*, 261; Sáenz, 1936, 22.

72. For Urapicho, Beals, 1946, 121.

771 In the Introduction, concepts of folk and national culture were presented. In Mexican Indian cultures the most distinctive aspects of folk religion are to be found in what we might call unorganized religion, i. e., those beliefs and rituals calling only for private ceremonials which are not connected with the Church and related ceremonial groups; they usually center around technological or life cycle activities. For instance, agricultural rites or concepts of diseases and ways of curing them are fields where more folk culture, and also more pre-Spanish survivals, are found.

771 Among the Tarascans, their connection  
177 with national life, greater than that of other Indian groups, has meant greater acculturation to the national culture. Technological rites are almost non-existent. One finds only miscellaneous beliefs about cooking, the hearth, or the influence of the moon on plants. Only corn agriculture has a few more religious associations in the more conservative villages where idols are kept in the cornfield and candles are lighted to them. There are also a number of tales and beliefs about corn and the weather.

● [241]

[821]  
[824]

796 In the life cycle ceremonies the main religious aspects today are those of Catholicism (the sacraments). Only witchcraft and some concepts of disease form any significant part of the folk religion, although they are dominated by ideas about the saints and the Devil, and historically are of Spanish more than of Indian origin.

[754]  
[177]

779 Unorganized (non-Church) religion is comparatively unimportant among the Tarascans. Most religion in the Tarascan culture has to be described in terms of the Church, a national (and international) institution with its own ideology, personnel, organization and particular interests. As it appears in Tarascan villages, there is a clear difference between national and folk components of religion. On the one hand are the priest and his connection to the hierarchy; and elements of the cult such as the sacraments, mass, rosary, etc., which follow the rules of the international Church. Other aspects of belief and ritual, on the other hand, though connected with those of the Church, are locally organized and peculiar to the local subculture. This is what we call folk Catholicism.

[P. 11-a]

134 Large cracks occur in the soil surface during the months of March and April, and moisture is evaporated from a depth of many inches. Consequently *caránda* is a "temporal" soil, i. e., it can be planted only after the rains begin. Because of its clayey texture, it erodes easily once the plant cover is stripped and the soil structure is destroyed. The cultivated slopes around Lake Pátzcuaro, for example, are one of the worst-eroded agricultural areas of Mexico. Wherever *caránda* soils occur, the surface is scarred by gullies, which are becoming a characteristic landscape feature in the low areas surrounding the Sierra.

134  
241 Minor soil types.—Among the most fertile in the Tarascan area are a few minor soil types. These include the alluvium in La Cañada and the lacustrine deposits around the shores of Lake Pátzcuaro and within the recently desiccated Zacapu Basin. Containing abundant organic  
Text continues top of P. 11b—Analyst]

# TARASCAN POPULATION

## THE RECESSION OF NATIVE SPEECH

191 One of the outstanding developments in Tarascan history has been the drastic areal recession of indigenous speech. Today the territory in which Tarascan (*P'orépecha*) is spoken represents only one-fifteenth of its pre-Conquest extent. 178  
171 The pre-Spanish linguistic area (discussed by Brand, 1944) included most of the present State of Michoacán, except the Pacific slope of the Sierra Madre del Sur between Colima and the lower Balsas (map 7). The political limits of the Tarascan state, however, extended beyond the language boundary: in the west into Jalisco, in the south to the Pacific, and in the north to the Bajío of Guanajuato (Brand, 1944; cf. Stanislawski, 1947 a). The Tarascan cultural core centered in the north-central part of the Empire, comprising the Lake Pátzcuaro-Cuitzeo area and the pine forests of the Sierra and the upper escarpment zone (Stanislawski, 1947 a). Tarascans extended their speech southward into the *tierra caliente* (basins of the Tepalcatepec and Balsas) by colonization from the highlands during the 14th and early 15th centuries. Likewise, the *P'orépecha* settlements around the eastern end of Lake Chapala and south thereof (Mazamitla) appear to have been 15th-century colonies. Within the pre-Conquest area various islands of foreign tongues existed; these represented colonies settled with permission of Tarascan chiefs. There were  
191  
563 Text continues bottom of P. 11b—Analyst]

[P. 11-b]

- 134 material and essential chemical elements, most  
 [24] of these soils are cropped annually without fallow. A peculiar soil type, called *uirás*, occurs near the edge of a lava flow on the southwestern shore of Lake Pátzcuaro, on Jarácuaro Island, and near Ihuatzio. The subsoil is a fibery-textured white clay (35.4 percent fine clay), from which the whitish-gray adobe bricks of Jarácuaro and Ihuatzio are made; the topsoil, when mixed with lacustrine deposits (as on Jarácuaro Island), forms a fertile loam extremely high in organic matter (nearly 5 percent) and calcium carbonate (7.7 percent). On the other hand, when the parent material lies close to the surface (as around Arócutin), the *uirás* is one of the poorest soils in the vicinity.<sup>16</sup>

<sup>16</sup> A similar soil type occurs at the edge of a lava flow along the highway on the outskirts of Zacapu. The relation between vulcanism and the formation of *uirás* is not clear.

## TARASCAN POPULATION

- 191 three inclusions of Matlaltzinca or Pirinda (Otomí  
 563 stock): (1) the largest, near present Morelia, from Undameo northeast to Charo, (2) at Taimeo, southeast of Lake Cuitzeo, and (3) at Huetamo near the Balsas.<sup>17</sup> Moreover, a group of Apaneca colonists lived at Guayameo, near Sirándaro on the Balsas, and an islet of Teco occurred between Tancitaro and Uruapan.<sup>18</sup>
- 161 Various factors contributed to the areal retrogression of Tarascans during the Spanish colonial and postcolonial periods. One factor was actual decrease of Indian population caused mainly by European diseases. The population of some  
 [16] areas was further weakened or depleted by migration of Tarascans as laborers to distant mining and agricultural centers. Moreover, Spanish and mulatto settlement within the indigenous area was a powerful force of hispanicization; wherever stock-raising estancias or sugar haciendas were established, native speech slowly disappeared. Conversely, in those areas shunned by Spanish settlers, Tarascan has been preserved  
 [91] to this day.
- 177 The most serious shock which the indigenous  
 164 cultures suffered from Spanish contact was the  
 161 frightful toll taken by the contagious European diseases that became epidemic throughout central

<sup>17</sup> Data obtained from the following Relaciones Geográficas in Mss. Nac., leg. 102: Rel. de Neotlán and Rel. de Cusco; Mss. Nac., leg. 99, Rel. de Charo Matlatzingo.

<sup>18</sup> Mss. Nac., leg. 102, Rel. de Sirándaro y Guayameo; Ponce Relación, 1572, vol. 1, p. 131; Mss. Nac., Códice Gómez Cossío, vol. 1, Rel. de Tancitaro.

[ P. 33-a ]

423 hectares in size,<sup>40</sup> and may be used indefinitely by the recipient, provided they are not left untilled for more than two successive years. They may be inherited by sons, daughters, or in-laws, and may be divided among them. A family head may sell the use rights of his land to another member of the community, but not to outsiders. The official title to lands is held by the pueblo.

Another remnant of communal holdings, common in all parts of Tarasca, is found in the woodland, which is considered common land.<sup>41</sup>

[804]

~~Text continues top of p. 33b1~~  
<sup>40</sup> In most parts of Tarasca land is measured in terms of the quantity of grain used in planting. Thus, in La Cañada a plot of maize land may vary from 1 to 8 liters of maize in size. Approximately 2 liters of maize is necessary to plant 1 hectare. (The term "hectare," however, is unknown to most Tarascans.) Five liters of maize equal 1 *medida*; 100 liters of maize are equivalent to 1 *fanega* (one hundredweight), or one *yunta*, meaning the amount of land in which a team (*yunta*) of oxen can plant one *fanega* of maize in one season. In terms of wheat, 44 liters equal 1 *carga*, or from 1 to 1½ *yuntas*. The above equivalents are those used in Chilchota and Carapan. Similar land measurements are employed in the Sierra.

<sup>41</sup> This aboriginal custom parallels the ancient Spanish practice of reserving woodland as communal property.

## TARASCAN ECONOMY

- 241 Tarascan economy is today, and was in pre-Conquest times, as diversified as that of any large Indian group in North America. Agriculture has always been the preeminent occupation of most of the Tarascan population. Formerly, a significant part of the people were fishers (or farmers and fishers), living around the shores of Lakes Pátzcuaro and Zirahuén and the numerous lakes and marshes of the northern plateau; the modern fishers are limited chiefly to the islands within Lake Pátzcuaro. Moreover, hunting and gathering, although now of small importance, is still practiced throughout the area. Apart from the food quest, two other occupations have characterized Tarascan economy since prehistoric days: handicrafts and trade. Many of the Tarascan villages specialize in particular home industries, for which they are famed over a large area. Again, in prehistoric and modern times the Tarascan has been one of the more notable Indian traders, serving as commercial middleman between the *tierra fría* and *tierra caliente* to the south and west.

## AGRICULTURAL SYSTEMS AND ASSOCIATED CROP TYPES

- 241 Tarascan agriculture involves a mixture of New and Old World plants and cultivation practices.  
 177 The native trilogy—maize, beans, and squash—  
~~Text continues bottom p. 33b1~~

423 Before the promulgation of the Federal forest laws  
 311 (1930's), all members of the pueblo reserved the  
 [656] right to cut wood and lumber in the *monte* with  
 permission of the *representante*. Today a Federal  
 tax must be paid (but is often evaded) by each  
 pueblo for lumber rights. Small plots of land  
 (*desmontes*) may be cleared and planted in any  
 part of the forest, but the farmer must first gain  
 permission of the *representante* and his committee.  
 In addition to the *monte* many pueblos possess  
 certain croplands, called *tierras de la comunidad*,  
 which are not assigned permanently to individuals,  
 but are worked communally, usually by landless  
 farmers, who receive a portion of the harvest as  
 remuneration. The remainder of the crop is often  
 stored in the pueblo as communal property to be  
 sold by the *representante* for the town treasury or  
 to be used as food in time of shortage.

#### TARASCAN ECONOMY

241 still forms the leading crop complex, but the  
 177 European grains—wheat, barley, the broadbean  
 and lentil—have become intimately associated  
 with Tarascan agriculture. European fruits are  
 grown with native types; Old World vegetables,  
 mainly cabbage, have become an integral part of  
 native food habits. But the modern Tarascan  
 considers such crops, most of which were intro-  
 duced over 400 years ago, as part of his aboriginal  
 culture. Furthermore, although Tarascans still  
 practice pre-Columbian shifting agriculture on  
 steep slopes, the Old World plow has transformed  
 indigenous cultivation on level and gently sloping  
 lands.

Agricultural acculturation continues constantly.  
 Tarascan *braceros* returning from the United  
 States have brought in apple cuttings from the  
 Yakima Valley, grapevines from California, corn  
 from Iowa. Within the last three decades a South  
 American *Oxalis* (*papa de Castilla*) has been intro-  
 duced in the Sierra south and west of Lake  
 Pátzcuaro. Again, alfalfa cultivation is slowly  
 penetrating into many parts of the Sierra. Recent-

[654] ly the Federal Government introduced a few steel  
 plows in some Tarascan villages, and here and  
 there one sees engine-powered threshing machines  
 slowly replacing the ancient European threshing  
 floor and flail.

[p. 34a]

241 The Tarascans, like many aboriginal groups  
177 strongly influenced by European culture, engage  
in two types of agriculture: field agriculture and  
horticulture. The former comprises extensive  
cultivation of grains in comparatively large fields  
with the plow and in small hillside plots with the  
hoe. Tarascan horticulture includes mainly the  
intensive cultivation of grains, vegetables, medic-  
inal plants, and fruits in the house-lot gardens  
(*ekuáru*, sing., *ekuárueta*, pl., hispanicized to  
*ecuario*); it also includes specialized truck garden-  
ing, such as that practiced on the shores of Lake  
Pátzcuaro.

## FIELD AGRICULTURE AND ASSOCIATED CROPS

241 There are three basic native food crops of  
261 Mexico: maize (starch and oil), beans (protein),  
and squash (vegetable vitamin), all of which are  
now associated with field agriculture. In most  
Indian and many mestizo communities this com-  
plex forms the principal elements in the common  
diet; the three crops are planted together in the  
same field, cultivated together in the same man-  
ner, and harvested about the same time.

243 Maize culture.—The earliest record of maize in  
[172] the Tarascan area is found in the charred ears  
encountered in a lava flow 18 km. northwest of  
Morelia. The date of the flow is unknown, but  
maize was probably known to the Tarascans when  
they settled in the Sierra and the northern  
plateau.

The provenience of maize cultivated by the  
early Tarascans is but a small part of the complex  
and obscure movements of corn from a secondary  
center of origin in southern Mexico or northern  
Central America.<sup>30</sup> Anderson (1946 a) has de-  
scribed three distinct races of *Zea mays* in central  
Mexico: (1) the Mexican Pyramidal, centering in  
the eastern highlands; (2) Mexican Narrow Ear,  
found in western Mexico, particularly in both cold  
and hot lands of Jalisco and Nayarit; and (3)  
Mountain Yellow, a high altitude maize (usually  
above 7,000 ft.) encountered in purest form in the  
highlands of western Mexico.<sup>31</sup> Located between

<sup>30</sup> See Mangelsdorf and Cameron (1942) on the hybridization of South  
American primitive maize and *Tripsacum* in Middle America.

<sup>31</sup> Following is a brief description of the above races as given by Anderson  
(1946 a, p. 171): (1) Mexican Pyramidal. Ears short, tapering regularly butt  
to tip; row number high to very high (16-24). Kernels dented and pointed.  
Color prevaillingly white and pale yellow. Plants short, pronounced inter-  
veinal red or purple coloring. Shallow root system, leaves broad and pubes-  
cent. Tassels with few or no branches. (2) Mexican Narrow Ear. Ears  
narrow, long, irregularly long-tapered, compressed at butt. Low row num-

241

[412]



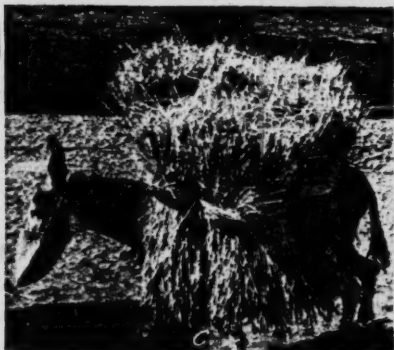
[343]



PLATE 5.—Mexican culture. *a*, The Egyptian plow, still widely used in Mexico (Nurto). Note straight steel tip (right) which slips over end of plow yoke and goes near end of team; leather strap used to harness yoke to horns of oxen. *b*, Plowing near Chihuahua. The first plow, which opens the furrow, is followed by two small boys, who drop seeds at regular intervals. The second plow covers the seeds. *c*, Cultivating near Cuernavaca. Field of young maize. *d*, Hill of maize and beans in low land near Chihuahua. Plants are about 1 week old. *e*, Newly burned landscape near Aja. Note wood ash, which will be mixed with underlying soil. *f*, Flatland on which maize fields (outcrop) is stored. Santa.

[End-plate 5]

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[492]  
[231]

[493]



PLATE 6.—Wheat culture. a. Irrigated wheat fields near Chileno, La Cumbre. b. Temperal wheat fields on the northern edge of the sierra, near Trinidad. c. Method of hauling wheat bundles to the threshing floor, Apo. d. Cutting wheat with the sickle, near Fishdome. e. Threshing wheat with flails, Bita. f. Threshing wheat in the ew with flails, at Comanga. The curve (right) is used in many parts of Tarasco to haul wheat bundles and make fodder.

[End-plate 6]